

CONTENTS OF VOLUME 59

Issue 1

Papers

- 1 Mechanical, thermal and morphological characterization of recycled LDPE/corn starch blends
A. G. PEDROSO & D. S. ROSA (ITATIBA, BRAZIL)
- 11 Functionality of starch granules in milling fractions of normal wheat grain
H. TANG, T. MITSUNAGA & Y. KAWAMURA (NARA, JAPAN)
- 19 In vitro studies of platelet adhesion on UV radiation-treated nylon surface
C. MAO, W. ZHAO, C. ZHU, A. ZHU, J. SHEN & S. LIN (NANJING, CHINA)
- 27 Analysis of calcium salt of carboxymethyl cellulose: size distributions of parent carboxymethyl cellulose by size-exclusion chromatography with dual light-scattering and refractometric detection
B. PORSCH (PRAGUE, CZECH REPUBLIC) & B. WITTGREN (MÖLNDAL, SWEDEN)
- 37 3² Factorial design and response surface analysis optimization of *N*-carboxybutylchitosan synthesis
K. S. C. R. DOS SANTOS, H. S. R. C. SILVA, E. I. FERREIRA (SÃO PAULO, BRAZIL) & R. E. BRUNS (CAMPINAS, BRAZIL)
- 43 Characteristics of native and enzymatically hydrolyzed *ragi* (*Eleusine coracana*) and rice (*Oryza sativa*) starches
B. H. MOHAN, A. GOPAL, N. G. MALLESHI & R. N. THARANATHAN (MYSORE, INDIA)
- 51 Effect of functional crosslinking agents on preparation and swelling properties of dextran hydrogels
H. K. CAN, B. K. DENIZLI, A. GÜNER & Z. M. O. RZAEV (ANKARA, TURKEY)
- 57 Grafting of sodium carboxymethylcellulose (CMC) with glycidyl methacrylate and development of UV curable coatings from CMC-*g*-GMA induced by cationic photoinitiators
O. H. LIN, R. N. KUMAR, H. D. ROZMAN & M. A. M. NOOR (PULAU PINANG, MALAYSIA)
- 71 HRP-catalyzed polymerization of sugar-based phenols in aqueous organic solvents
S.-I. TAWAKI (TOKYO, JAPAN), Y. UCHIDA, Y. MAEDA & I. IKEDA (FUKUI, JAPAN)
- 75 Characteristic immunostimulation by MAP, a polysaccharide isolated from the mucus of the loach, *Misgurnus anguillicaudatus*
C. ZHANG & K. HUANG (WUHAN, CHINA)
- 83 Influence of dextran, pullulan and gum arabic on the physical properties of frozen sucrose solutions
E. C. LOPEZ (HIDALGO, MEXICO), D. CHAMPION, G. BLOND & M. LE MESTE (DIJON, FRANCE)
- 93 A novel process for preparation of (1 → 3)-β-D-glucan sulphate by a heterogeneous reaction and its structural elucidation
Y.-J. WANG, S.-J. YAO, Y.-X. GUAN, T.-X. WU (HANGZHOU, CHINA) & J. F. KENNEDY (BIRMINGHAM, UK)
- 101 Chemical modification and antitumour activity of Chinese lacquer polysaccharide from lac tree *Rhus vernicifera*
J. YANG, Y. DU, R. HUANG, L. SUN, H. LIU (HUBEI, CHINA), X. GAO (HUBEI, CHINA) & J. F. KENNEDY (BIRMINGHAM, UK)
- 109 Structure and mechanical behaviour of corn flour and starch–zein based materials in the glassy state
H. CHANVRIER, P. COLONNA, G. DELLA VALLE & D. LOURDIN (NANTES, FRANCE)

Book reviews

- 121 Environmentally-Friendly Food Processing
- 121 Food Authenticity and Traceability
- 122 Rapid and On-line Instrumentation for Food Quality Assurance
- 122 Proteins in Food Processing

- 125 Calendar
- 127 Bibliography

Issue 2**Papers**

- 131 Specialty starches for snack foods
M. G. SAJILATA & R. S. SINGHAL (MUMBAI, INDIA)
- 153 Structural and physicochemical characteristics of winter squash (*Cucurbita maxima* D.) fruit starches at harvest
D. G. STEVENSON (AMES, IA, USA), S.-H. YOO (SEOUL, SOUTH KOREA), P. L. HURST (PALMERSTON, NEW ZEALAND) & J.-L. JANE (AMES, IA, USA)
- 165 Synthesis and characterization of a novel amphiphilic chitosan–polylactide graft copolymer
Y. WU, Y. ZHENG, W. YANG, C. WANG, J. HU & S. FU (SHANGHAI, CHINA)
- 173 Fibrillation tendency of cellulosic fibers—part 3. Effects of alkali pretreatment of lyocell fiber
W. ZHANG, S. OKUBAYASHI & T. BECHTOLD (DORNBIRN, AUSTRIA)
- 181 Storage stability of laccase induced arabinoxylan gels
E. CARVAJAL-MILLAN (MONTPELLIER, FRANCE), B. GUIGLIARELLI, V. BELLE (MARSEILLE, FRANCE), X. ROUAU & V. MICARD (MONTPELLIER, FRANCE)
- 189 Rheological characterisation of mixed gels of mucin and alginate
C. TAYLOR (TRONDHEIM, NORWAY), J. P. PEARSON (NEWCASTLE UPON TYNE, UK), K. I. DRAGET (TRONDHEIM, NORWAY), P. W. DETTMAR (DANSOM LANE, UK) & O. SMIDSRØD (TRONDHEIM, NORWAY)
- 197 Important role of starch in the freeze-thaw damage of Nama-An particles prepared from adzuki beans (*Vigna angularis*)
H. TANG (NARA, JAPAN), H. ANDO (KYOTO, JAPAN), T. MITSUNAGA & Y. KAWAMURA (NARA, JAPAN)
- 205 Studies of cross-linking reaction on chitosan fiber with glyoxal
Q. YANG, F. DOU, B. LIANG & Q. SHEN (SHANGHAI, CHINA)
- 211 Polymerisation of β -cyclodextrin with succinic anhydride. Synthesis, characterisation, and ion flotation of transition metals
T. GIREK, C. A. KOZLOWSKI, J. J. KOZIOL (CZESTOCHOWA, POLAND), W. WALKOWIAK (WROCLAW, POLAND) & I. KORUS (POLAND)
- 217 Novel synthetic route of a trehalose-based linear polymer by ring opening of two epoxy groups with aliphatic diamine
N. TERAMOTO, Y. ABE, A. ENOMOTO, D. WATANABE & M. SHIBATA (CHIBA, JAPAN)
- 225 Pilot-scale isolation of glucuronoarabinoxylans from wheat bran
J. HOLLMANN & M. G. LINDHAUER (DETMOLD, GERMANY)
- 231 Structural characterisation of hemicellulosic polysaccharides from *Benincasa hispida* using specific enzyme hydrolysis, ion exchange chromatography and MALDI-TOF mass spectroscopy
S. MAZUMDER (BURDWAN, INDIA), P. LEROUGE, C. LOUTELIER-BOURHIS, A. DRIOUICH (MONT SAINT AIGNAN, FRANCE) & B. RAY (BURDWAN, INDIA)

- 239 Physicochemical properties of hydroxypropylated and cross-linked starches from A-type and B-type wheat starch granules
P. VAN HUNG & N. MORITA (OSAKA, JAPAN)
- 247 Influence of structure on in vitro fermentability of commercial pectins and partially hydrolysed pectin preparations
M. GULFI, E. ARRIGONI & R. AMADÒ (ZURICH, SWITZERLAND)
- 257 Comparison on chain stiffness of a water-insoluble (1 → 3)- α -D-glucan isolated from *Poria cocos* mycelia and its sulfated derivative
L. ZHANG, L. CHEN, X. XU, Y. LIN (WUHAN, CHINA), P. C. K. CHEUNG & J. F. KENNEDY (BIRMINGHAM, UK)

Book reviews

- 267 Materials in Sport Equipment
- 267 Biopolymers
- 267 Calendar
- 269 Bibliography

Issue 3

Papers

- 275 Characterization of biocompatible fungi-derived polymers that induce IL-8 production
S. MADLA, P. METHACANON, M. PRASITSIL & K. KIRTIKARA (PATUMTHANI, THAILAND)
- 281 Structural features of an immunoactive acidic arabinogalactan from *Centella asiatica*
X. S. WANG, Y. ZHENG, J. P. ZUO & J. N. FANG (SHANGHAI, CHINA)
- 289 Thermodynamic properties of aqueous solutions of maltodextrins from laser-light scattering, calorimetry and isopiestic investigations
L. NINNI, A. J. A. MEIRELLES (CAMPINAS, BRAZIL) & G. MAURER (KAISERSLAUTERN, GERMANY)
- 305 HPLC analysis of aliphatic and aromatic dicarboxylic acid cross-linkers hydrolyzed from carbohydrate polyesters for estimation of the molar degree of substitution
A. B. SARKAR & G. M. KOCHAK (AUBURN, AL, USA)
- 313 Gel formation in mixtures of hydrophobically modified potato and high amylopectin potato starch
F. E. ORTEGA-OJEDA, H. LARSSON & A.-C. ELIASSON (LUND, SWEDEN)
- 329 Preparation and characterization of starch/poly(L-lactic acid) hybrid foams
D. PREECHAWONG, M. PEESAN, P. SUPAPHOL & R. RUJIRAVANIT (BANGKOK, THAILAND)
- 339 Modelling the rheological behaviour of galactomannan aqueous solutions
W. SITTIKIJYOTHIN, D. TORRES & M. P. GONÇALVES (PORTO, PORTUGAL)
- 351 Solution properties of water-insoluble polysaccharides from the mycelium of *Ganoderma tsugae*
Y. PENG, L. ZHANG, Y. ZHANG, X. XU (WUHAN, CHINA) & J. F. KENNEDY (BIRMINGHAM, UK)
- 357 Structural characterization of water-insoluble nonstarchy polysaccharides of oats and barley
L. VIRKKI, L. JOHANSSON, M. YLINEN, S. MAUNU & P. EKHOLM (HELSINKI, FINLAND)
- 367 Effect of konjac glucomannan deacetylation on the properties of gels formed from mixtures of kappa carrageenan and konjac glucomannan
P. PENROJ (BANGKOK, THAILAND), J. R. MITCHELL, S. E. HILL (LEICS, UK) & W. GANJANAGUNCHORN (BANGKOK, THAILAND)
- 377 Effect of high pressure on the structure of potato starch
W. BŁASZCZAK (OLSZTYN, POLAND), S. VALVERDE (MADRID, SPAIN) & J. FORNAL (OLSZTYN, POLAND)

- 385 Structure and antitumor activities of the water-soluble polysaccharides from *Ganoderma tsugae* mycelium
Y. PENG, L. ZHANG, F. ZENG (WUHAN, CHINA) & J. F. KENNEDY (BIRMINGHAM, UK)

Short communications

- 393 A non-ionic water soluble seed-gum from *Parkinsonia aculeata*
K. TEWARI (JHANSI, INDIA), V. SINGH & P. C. GUPTA (ALLAHABAD, INDIA)
- 397 Characterisation of potato leaf starch with iodine-staining
S. SANTACRUZ, R. ANDERSSON & P. ÅMAN (UPPSALA, SWEDEN)

Book reviews

- 401 Wine Science: Principle, Practice, Perception, 2nd Edition
- 401 Essential Cell Biology, Volume 1: Cell Structure
- 402 Essential Cell Biology, Volume 2: Cell Function
- 402 Biotechnology from A to Z, Third Edition
- 405 Calendar
- 407 Bibliography

Issue 4

Papers

- 411 Thermostable inulin fructotransferase (DFA III-producing) from *Arthrobacter* sp. L68-1
K. HARAGUCHI, M. YOSHIDA & K. OHTSUBO (IBARAKI, JAPAN)
- 417 Cationic starch: an effective flocculating agent
S. PAL, D. MAL & R. P. SINGH (KHARAGPUR, INDIA)
- 425 Emulsion stabilizing properties of various chitosans in the presence of whey protein isolate
S. LAPLANTE, S. L. TURGEON & P. PAQUIN (QUÉBEC, QC., CANADA)
- 435 Kinetics of polysaccharide degradation during ethanol–alkali delignification of giant reed—Part 1. Cellulose and xylan
A. A. SHATALOV & H. PEREIRA (LISBOA, PORTUGAL)
- 443 Banana starch: production, physicochemical properties, and digestibility—a review
P. ZHANG, R. L. WHISTLER, J. N. BEMILLER & B. R. HAMAKER (WEST LAFAYETTE, IN, USA)
- 459 Rheological properties of barley β -glucan
Z. BURKUS & F. TEMELLI (EDMONTON, ALTA, CANADA)
- 467 Rheology of starch–clay nanocomposites
B.-S. CHIOU, E. YEE, G. M. GLENN & W. J. ORTS (ALBANY, CA, USA)
- 477 Cell wall polysaccharides in black currants and bilberries—characterisation in berries, juice, and press cake
H. HILZ, E. J. BAKX, H. A. SCHOLS & A. G. J. VORAGEN (WAGENINGEN, THE NETHERLANDS)
- 489 Comparative studies on solution characteristics of mannuronan epimerized by C-5 epimerases
M. DENTINI, G. RINALDI, D. RISICA, A. BARBETTA (ROME, ITALY) & G. SKJÅK-BRÆK (TRONDHEIM, NORWAY)
- 501 Chemical modification of *Cassia occidentalis* seed gum: carbamoylethylation
S. GUPTA, P. SHARMA & P. L. SONI (DEHRADUN, INDIA)
- 507 Change of granular and molecular structures of waxy maize and potato starches after treated in alcohols with or without hydrochloric acid
J.-H. LIN, C.-Y. LII & Y.-H. CHANG (TAIWAN, ROC)
- 517 A novel and efficient approach for imparting magnetic susceptibility to lignocellulosic fibers
D. G. MANCOSKY (ROME, GA, USA) & L. A. LUCIA (RALEIGH, NC, USA)

- 521 Preparation and properties of biodegradable foams from starch acetate and poly(tetramethylene adipate-co-terephthalate)
Y. XU & M. A. HANNA (LINCOLN, NE, USA)

- 531 The anti-cancer activity of polysaccharide prepared from Libyan dates (*Phoenix dactylifera* L.)
O. ISHURD (TRIPOLI, LIBYA) & J. F. KENNEDY (BIRMINGHAM, UK)

Short communications

- 537 On the presence of starch bound phosphate in potato leaf starch
S. SANTACRUZ, R. ANDERSSON & P. ÅMAN (UPPSALA, SWEDEN)
- 541 Cross-linking starch at various moisture contents by phosphate substitution in an extruder
M. SEKER (KOCAELI, TURKEY) & M. A. HANNA (LINCOLN, NE, USA)

Book reviews

- 545 Evolutionary Methods in Biotechnology: Clever Tricks for Directed Evolution
- 545 Olive-Mill Waste Management, Literature Review and Patent Survey
- 546 Functional Foods, Ageing and Degenerative Disease
- 546 Chromatography 6th Edition—Fundamentals and Applications of Chromatography and Related Differential Migration Methods. Part A: Fundamentals and Techniques
- 549 Calendar
- 551 Contents of Volume 59